

esting and to present various subjects not strictly medical but with which the physician comes into close contact in his everyday life. He discusses such subjects as coöperation between doctor and patient, adolescence and the family doctor, the overworked business man, to quote just a few of the titles of the sixteen chapters which the book contains. The author's relationship with physicians has evidently been most cordial, as he is kind and generous to the physician. He avoids criticism of him and advises the person who is not on intimate terms with his doctor to become acquainted with him, and to secure his advice early, in order to obviate conditions which may cause trouble later in life. The book is intended not only for the physician but also for the layman. One might almost suggest that the author had in mind the physician's distribution of the book to the layman.

J. H. M., Jr.

DIAGNOSTIC AND THERAPEUTIC TECHNIC. By ALBERT S. MORROW, A.B., M.D., F.A.C.S., late Lieutenant-Colonel, M.C., U.S.A., Attending Surgeon to the City Hospital and to St. Bartholomew's Hospital; Consulting Surgeon to the Nassau Hospital, Mineola, L. I. Third edition. Pp. 872, 892 illustrations. Philadelphia and London: W. B. Saunders Company, 1921.

THE third edition of Doctor Morrow's book has been completely revised and entirely reset, but follows very closely the previous editions in the general scheme. Every type of modern therapeutic and diagnostic method is presented. For example, the author gives a complete section on the treatment of wounds by Carrel-Dakin method; he tells us how to do lumbar puncture; how to make the proper examination of the nose and throat, as well as how properly to insert a vaginal speculum. From these four examples it may be seen how many different types of specialties are presented. These do not include by any means all the specialties. Indeed, one might say that every type of specialty is dealt with which has anything to do with the use of instruments and in which there is not performed a major operation. The book is not sufficiently complete for a man doing any particular line of work, but will aid very materially those engaged in some other line at times called upon to wander from his beaten track, or the man in general practice in performing diagnostic or therapeutic procedures in which he is not thrown actively into contact or meets with frequently.

J. H. M., Jr.

PROGRESS OF MEDICAL SCIENCE

SURGERY

UNDER THE CHARGE OF

T. TURNER THOMAS, M.D.,

ASSOCIATE PROFESSOR OF APPLIED ANATOMY AND ASSOCIATE IN SURGERY IN THE
UNIVERSITY OF PENNSYLVANIA; SURGEON TO THE PHILADELPHIA GENERAL
AND NORTHEASTERN HOSPITALS AND ASSISTANT SURGEON
TO THE UNIVERSITY HOSPITAL.

On Ununited Fractures.—BERESFORD (*Brit. Med. Jour.*, 1921, p. 456), says that a fracture which shows no evidence of bony union at the end of twelve months may be regarded as a case of non-union. Normal bone—merely specialized connective tissue—is constantly undergoing steady processes of absorption and reformation, like all other tissues. There is, however, a special method for absorption—the osteoclastic. Moreover, factors which stimulate osteoclastic processes, increase in like measure bone-forming elements—the osteoblasts, which in early stages are not distinguishable from fibroblasts. It is, therefore, not surprising that fibrous union is not uncommon. Pituitary secretion particularly produces hypertrophy of interstitial bone while the thyroid gland also has an important influence upon bone formation. The chief features noted on examination of the ununited fractures are: atrophy of the bone, loss of vascular supply and sclerosis of surrounding soft tissues and the bone ends. The causes can be grouped as general and local. In the first group are included some upset between osteoclastic and osteoblastic elements, disuse and defective blood supply, while in the second group, non-apposition of fractured ends is the foremost cause. Movement between apposed ends and prolonged severe infections are other causes. The most important part of the treatment will be directed to the local state, although due regard should be paid to the general condition. Massage and electricity are important to improve and maintain nutrition, while movement and use should be encouraged whenever possible with special attention to all joints and soft structures. Infection must always be cleared up, and an interval of at least three months allowed after healing. It is sometimes desirable to perform two operations in cases of prolonged infection. At the first, scar tissue is excised and the sclerosed ends of bone removed. Complete suture is immediately performed, while

the main operation is done one month later. The operation consists in attaining apposition and retaining apposition without possibility of movement between the ends. The method of actually attaining apposition will depend upon the bone and the condition of the bone ends. The methods employed are the "slot" or "dovetailing" method, the "step" method, the sliding bone-graft, and bone transplantation, the slot being filled with an accurately fitting piece of bone cut from some other bone, usually the tibia. This last is the most successful type of bone transplantation. Speed is of importance as bone dries very quickly after exposure. The uncovered parts are bathed with warm saline. In every case, the ends are securely bound together by drilling holes and using thick thirty-day catgut. The whole limb is put up in plaster, paying particular attention to fixation of the joint above and below. A radiogram, taken through the plaster may be taken in a day or so to see that all is well. After bone grafting or transplantation it is wise not to remove the plaster before the end of three months and a protective splint used for further period. The length of time of non-union, even a period of years, should not deter one from operating with a reasonable certainty of a good result.

The Indications for Cholecystectomy.—MONSARRAT (*Brit. Med. Jour.*, 1921, p. 371), says that the problem in the treatment of cholecystitis whether associated with gallstones or not is to arrest infection and obviate its recurrence. The test of successful operation for cholecystitis, is whether the infection of the bile channels clears up, the liver function returns to normal with no recurrent symptoms from inflammatory reaction or adhesions in the operation area. It has been the author's experience that a considerable proportion of cases of cholecystitis treated by drainage fail to pass this test, for ill health is suffered referable to the persistence of the gall-bladder as a centre of infection. Chronic cholangitis with chronic pancreatitis, recurrent attacks of pain and tenderness in neighborhood of the wound, gastric distention, spasm and vomiting due to the angulation of the pylorus and duodenum by adhesions are resulting conditions. For these reasons, it seems advisable to remove a gall-bladder which has been attacked by cholecystitis of any type, because patients who have had the gall-bladder removed do not suffer any demonstrable disadvantage from its absence, while in calculous cholecystitis they are relieved of the double risk of reformation of stones and persistence of bile-duct inflammation. In cases of cholecystitis without calculi, patients are relieved of a diverticulum which would in all probability prove to be the source of a recrudescence of their intoxication. Granted that cholecystectomy is a cleaner performance and not a more serious operative risk than cholecystostomy—that the gall-bladder is of no particular functional value in the human subject, that it is, moreover, the nidus of persistent infections in the biliary channels—then argument for cholecystectomy as the normal operation in cholecystitis is overwhelming.

Treatment of Syphilis.—FELDMAN (*Amer. Jour. Syphilis*, 1921, v, 268) says that the results obtained in primary lues by treating the patient before his blood becomes positive is not much better than when treatment is instituted after systemic invasion. Salvarsan will clear

up symptoms much more rapidly than mercury. The chances for obtaining a negative Wassermann reaction in cases of latent lues even in very old cases are very good and they should be treated. All early cerebrospinal cases can be cured and a proportionately large number of old cases are favorable influenced by ordinary intravenous salvarsan and intramuscular mercury injections. The advantage claimed for intraspinal treatment does not seem to compensate for its disadvantage. A negative Wassermann reaction obtained after a single course of a few months of treatment does not indicate that a cure has been effected. A comparatively large proportion of patients returned to the positive Wassermann after a period of one year without treatment. Treatment therefore should be kept up for at least one year after the first negative result and if the Wassermann is still negative at that time, treatment may be discontinued and the patient watched.

PEDIATRICS

UNDER THE CHARGE OF

THOMPSON S. WESTCOTT, M.D., AND ALVIN E. SIEGEL, M.D.,
OF PHILADELPHIA.

Masked Juvenile Tuberculosis.—COOKE and HEMPLEMANN (*Am. Rev. Tuberculosis*, November, 1920), in attempt to show that it is during childhood that infection with tuberculosis occurs, studied 1556 children by the complement-fixation test. The results in 116 who had manifest tuberculosis including chiefly pulmonary, meningeal and bone involvement with some cases of generalized infection, were interesting. The tests were uniformly negative in infants under one year of age, and was positive in only one-fifth of the cases between the first and second years. From the third to the sixth year the percentage of positive reactions rose to 50 and with each succeeding year it increased rapidly so that between nine and fifteen years of age 82 per cent of children with such active tuberculosis gave a positive complement-fixation test. Another group of 556 cases with no evidence of infection with tuberculosis and with negative skin tuberculin reactions gave only 19, or 3.4 per cent, positive reactions to the complement-fixation test. Only twenty well children were examined, who had been observed during an obviously active tuberculosis some years before. These children were free from all signs for from two to six years, and only two gave positive complement-fixation tests. These rather striking figures in themselves indicate that positive fixation tests accompany evidence of clinical activity in tuberculosis, and are found in relatively small proportions of children with such infections. In 131 cases of masked juvenile tuberculosis no case was seen under one year of age, and only five in the second year. After two years of age there was an increasing proportion of positive reactions to 50 per cent from the second to the fourth years and to 95 per cent for from the twelfth to the fifteenth year. In 116 children